











■ Main Features

- High efficiency and extremely compact size
- Only 40mm width aluminum enclosure
- **Active PFC**
- Overload 150%
- Constant current or hiccup mode limitation, user settable
- Wide range of output voltage
- Easy parallelable for power increase
- Up to 70°C operating temperature with no derating

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TECHNICAL DATA

DC OK, green LED	Model type	NPSM241-12 (P)	NPSM241-24 (P)	NPSM241-36 (P)	NPSM241-48 (P)	NPSM241-72 (P)	
22.159/dc 22.299/dc 23.2409/dc 45.539/dc 70.30 70.							
Section contract current mode							
Develoal mint in Constant current mode							
Deveload limit in hickup mode (max. 56)							
Load regulation							
Signifie	, , , ,		13A			3.5A	
15			< 260mVpp			< 550mVpp	
Coverious And short circuit: Constant current or Hiccup mode (user settable)	• •	' '			, ,		
Protections *** **	noid up time			l .		2 131113	
Imput Undervoltage Dictout							
2.18Ve ≥ 33Ve ≥ 51Ve ≥ 68Ve ≥ 100Vei	Protections	· ·					
D. Co. green LED		 Output overvol 	tage				
OVERLOAD - red LED	Output overvoltage protection	≥ 18Vdc	≥ 33Vdc	≥ 51Vdc	≥ 68Vdc	≥ 100Vdc	
DC OK - dy contact (NO, 24Vtc/ 1A)		■ DC OK - green l	ED	•		•	
Parallel connection P (models) - include internal ORing module	Status Signals						
Parallel connection* P (models) - include internal ORing circuit							
Neuro Data	Parallel connection2	Possible for power or redundancy (with external ORing module)					
Input AC rated voltage Range: 902649c (UL certified) Range: 902649c Range: 90	raialiei connection-	■ P (models) - inc	lude internal ORing circuit				
Input AC rated voltage Range: 90 264Vac Frequency 47 63Hz	INPUT DATA						
Frequency	Input AC rated voltage		Non	·	fied)		
Input DC rated voltage Input AC rated current Vin = 120/0xe Vin = 240/0xe Vin = 240/0xe Vin = 240/0xe Vin = 120/0xe Vin = 345/0xf Vin = 120/0xe Vin = 345/0xf Vin = 345/0x	T	Range: 90264Vac					
Input AC rated current							
Vin = 120Vac	Input DC rated voltage			110345Vdc			
1.2A							
Input DC rated current							
Vin = 110Vdc 2.5A 2.6A 2.5A 2.6A Vin = 345Vdc 1.2A 0.9A 1.2A 0.9A Power factor correction Active / > 0.9 Inrush peak current? / It ≤ 34A / 0.66A²s 5.0 mA Touch (leakage) current Fuse 6.3AT (not user replaceable) Fuse 10AT or MCB 10A C curve Fuse 10AT or MCB 10A C curve Recommended external protection It is strongly recommended to provide external surge arresters (SPD) according to local regulations. GENERAL DATA Efficiency > 90% > 93% > 93% > 93.5% Dissipated power < 25W		1.	ZA T	1.5A	1.	2A	
Nn 345/dc	i i			0.71			
Power factor correction Active / > 0.9							
Inrush peak current* 1		1.2A	0.5A	l .	0.	3A	
Touch (leakage) current							
Internal protection fuse				·			
Fuse 10AT or MCB 10A C curve							
Recommended external protection GENERAL DATA Efficiency > 90% > 93% > 93% > 93% > 93.5% Dissipated power < 25W < 19W < 19W < 19W < 17W Operating temperature4 Derating No derating Storage temperature	Internal protection fuse		Fu	se 6.3AT (not user replaceat	ole)		
Efficiency	Recommended external protection						
Efficiency > 90% > 93% > 93% > 93.5% Dissipated power < 25W		It is stror	ngly recommended to provi	ide external surge arresters	(SPD) according to local reg	gulations.	
Dissipated power < 25W < 19W < 19W < 17W			I				
Operating temperature4							
Derating temperature* UL certified up to 70°C	Dissipated power	< 25 VV	< 1900		< 1	./ ٧٧	
Derating No derating	Operating temperature ⁴						
Storage temperature	Derating			·			
Humidity				<u> </u>			
Life time expectation 221'288h (25.2 years) at 25°C ambient full load MTBF • MIL-HDBK-217F > 600'000h at 25°C ambient full load Overvoltage category • EN50178 III Pollution degree • IEC60664-1 2 Protection Class • CLASS I Input / output isolation 4.2kVdc Input / ground isolation 0.75kVdc Output / ground isolation 0.75kVdc Safety Standards ⁵ • EN60950 (reference) • EN50178 (reference) (reference) • EN50100-3-2 Class A Class B • EN61000-4-2 Level 3 EVEL Section Colon-4-3 Level 3 • EN61000-4-3 Level 4 EVEL Section Colon-4-4 Level 4 • EN61000-4-5 Level 4 EVEL Section Colon-4-1 Level 2							
MIL-HDBK-217F	,						
ENSO178							
Pollution degree		■ MIL-HDBK-217F > 600'000h at 25°C ambient full load					
CLASS I		2.130270					
Input / output isolation		<u> </u>					
Input / ground isolation		CLASS	I				
Output / ground isolation 0.75kVdc Safety Standards ⁵ • EN60950 (reference) • EN50178 (reference) • EN55011 (CISPR11) Class B EMC Emission • EN61000-3-2 Class A • EN61000-4-2 Level 3 • EN61000-4-3 Level 3 EMC Immunity • EN61000-4-4 Level 4 • EN61000-4-5 Level 4 • EN61000-4-11 Level 2	Input / output isolation			4.2kVdc			
UL508 (certified E356563) EN60950 (reference) EN50178 (reference) EMC Emission	Input / ground isolation	2.2kVdc					
UL508 (certified E356563) EN60950 (reference) EN50178 (reference) EMC Emission EN61000-3-2 Class B EN61000-4-2 Level 3 EN61000-4-3 Level 3 EMC Immunity EN61000-4-4 Level 4 EN61000-4-5 Level 4 EN61000-4-11 Level 2	Output / ground isolation						
Safety Standards ⁵ EN60950 (reference) (reference) EMC Emission EN55011 (CISPR11) Class B Class B EMC Immunity EN61000-4-2 Level 3 Level 3 EMC Immunity EN61000-4-4 Level 4 Level 4 EMC Immunity EN61000-4-5 Level 4 Level 4 EN61000-4-11 Level 2 Evel 4	Safety Standards ⁵	■ UL508	(certified E3565	563)			
EMC Emission EN55011 (CISPR11) Class B EN61000-3-2 Class A EN61000-4-2 Level 3 EN61000-4-3 Level 3 EMC Immunity EN61000-4-4 Level 4 EN61000-4-5 Level 4 EN61000-4-11 Level 2			·	•			
EMC Emission		■ EN50178	(reference)				
ENG1000-3-2 Class A ENG1000-4-2 Level 3 ENG1000-4-3 Level 3 EMC Immunity ENG1000-4-4 Level 4 ENG1000-4-5 Level 4 ENG1000-4-11 Level 2	FMC Emission	,	R11) Class B				
EMC Immunity EMC Immunity EN61000-4-3 EN61000-4-4 EN61000-4-5 Level 4 EN61000-4-11 Level 2	LIVIC LIIII331011	■ EN61000-3-2	Class A				
EMC Immunity							
■ EN61000-4-5 Level 4 ■ EN61000-4-11 Level 2							
■ EN61000-4-11 Level 2	EMC Immunity						
Ulvetestian degree	Dratastian dagras						
Protection degree EN60529 IP20				47.0.500:: 2.21	/ : /// =/		
		■ IEC 60068-2-6 (5-17.8Hz: ±1.6mm; 17.8-500Hz: 2g 2hours / axis (X,Y,Z)					
Shock IEC 60068-2-27 (30g 6ms, 20g 11ms; 3 bumps / direction, 18 bumps total)	Shock						
Connection terminals 2.5mm², screw type pluggable (2412AWG)	Connection terminals		2.5mm²	, screw type pluggable (24	12AWG)		

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Case material	Aluminum
Weight	0.60kg
Size (W x H x D)	40.0 x 115.0 x 110.0mm

- 1) Ripple and Noise are measured with 20MHz bandwidth, probe terminated with a 0.1µF MKP parallel capacitor.
 2) Pay attention, set the current limitation mode jumper on C.C. mode when connecting more units in parallel.
 3) Peak current measured after 0.2ms from main connection; 240Vac/50Hz; Ambient temperature at 25°C; Cold Start.
 4) Start-up type tested: 40°C, possible at nominal voltage with load deration.
- 5) NPSM241-36 (P) are not UL508 certified.

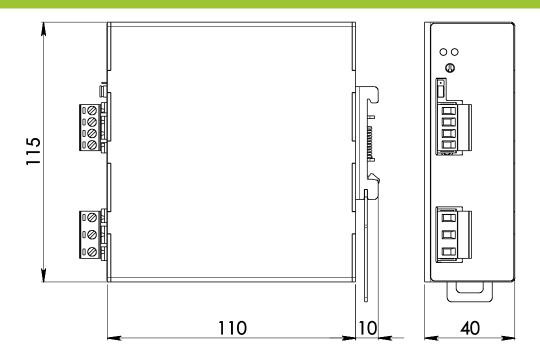
- Notes:

 Technical parameters are typical, measured in laboratory environment at 25°C and 240Vac / 50Hz, at nominal values, after minimum 5 minutes of operation.

 Power rating, losses, efficiency, ripple, thermal behaviour and start-up may change outside of the nominal rated input range. Contact factory for details.

Data may change without prior notice in order to improve the product.

DIMENSIONS



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CONNECTION











Input Connection:

Single phase:

- L = Line
- N = Neutral
- 🖶 = Earth ground

DC:

- L = + Positive DC
- N = Negative DC
- 🖶 = Earth ground

Output Connection:

- + = Positive DC
- -= Negative DC

Signalling:

DC OK: dry contact

- NO
- COM

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